



## What Got Us Here, Won't Get Us There

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# Design for Sustainability. A Craft Based Approach

John Varghese<sup>a</sup>,

<sup>a</sup>World University of Design

\*Corresponding author e-mail: john.varghese@wud.ac.in

**Abstract:** We are today staring at a picture of unprecedented environmental degradation of planet, disparities on the social front, and failing economies. Sustainable development movement has gained momentum in the past 50 years especially in the Fashion and Textiles industry, which is the second most polluter after the fossil fuels industry. This article delves into the concept of sustainable development taking advantage of the synergies between crafts, communities and designers. Starting with historical facts about Indian traditional textiles and related communities and adding the insights from the experiences of the author in the global textile design and trade, it explores how designers in the Fashion and Textile realm can contribute to the sustainable development by taking a Craft Based Design (CBD) approach. It also mentions some challenges that beset this approach and contemplates the road ahead.

**Keywords:** Sustainability, Sustainable Development, Crafts, Design, Sustainable Design.

## 1. Introduction.

**Craft based design (CBD)** is the practice of designing objects that can be produced using primarily hand skills with simple tools and employing the local traditional wisdom of craft processes. (M.P Ranjan 2001). "Each category of craft (such as textiles, pottery, woodworking, and lacquering) has its own material knowledge, techniques, and processes and influences the thoughts of creators and the execution of object creation through various cultural symbolisms, implications, and emotions." (Zaccone, Santhia, Bosone, 2022). This provides access to a wealth of knowledge, social empowerment and sustainable economic gains. Handloom and hand painted Textiles, Hand Embroideries, and Handcrafted objects d'art have been the mainstay of India's success story as a global source of inspiration and products. These craft-based approaches foster inclusive creativity and innovation, reinforce inclusivity, commitment and trust among the community. Stewardship of resources, space and traditions are ingrained in this approach, resulting in relational and resource capital.

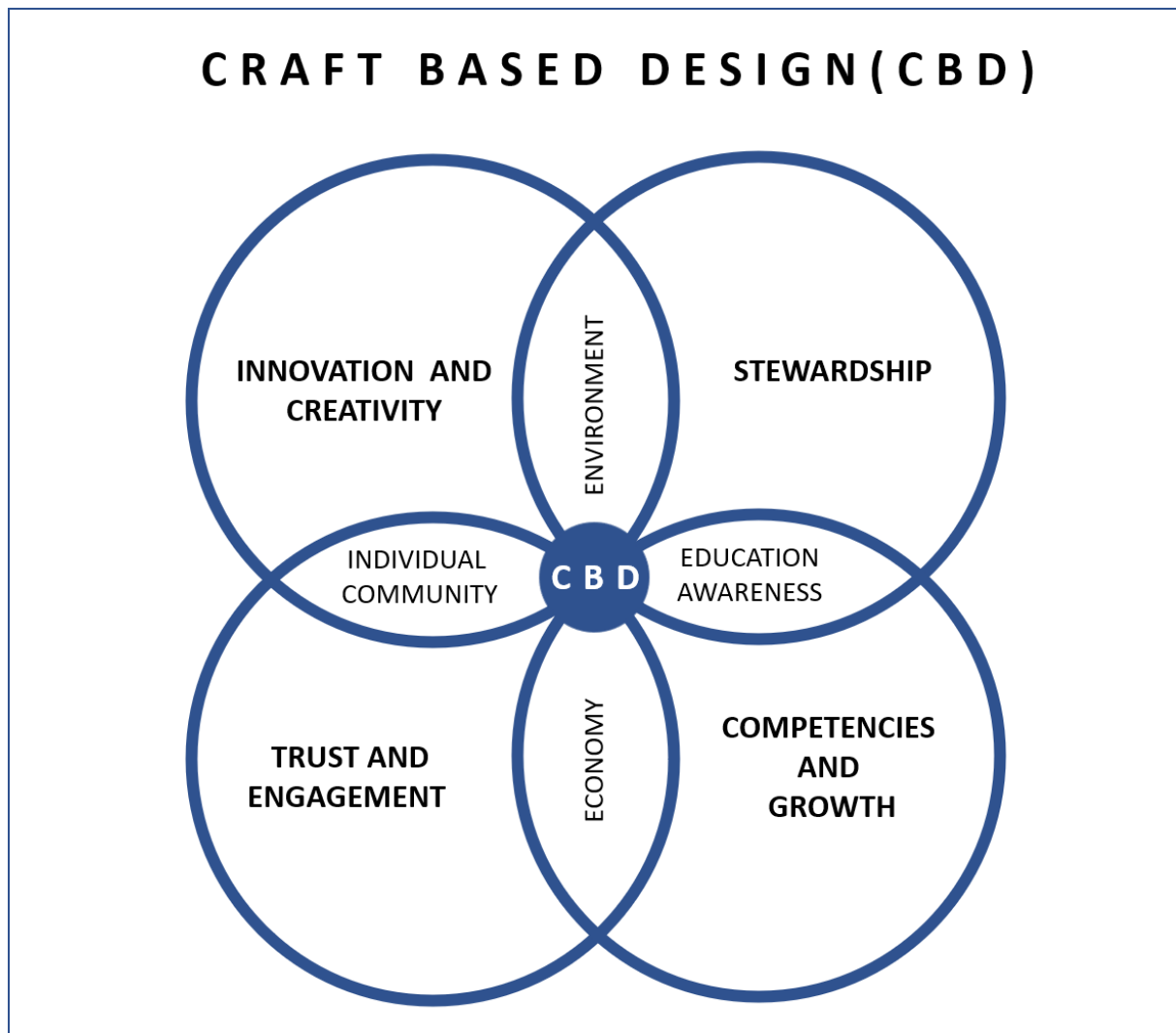


Figure 1. Craft based Design (CBD) and its Characteristics. Credit: John Varghese

This article explores the use of craft-based design approaches to contribute towards sustainability. It draws inferences and the insights gained by the author who has put in two and a half decades of work among craft-based producers, leveraging Indian traditional embroideries and textiles and designing for the contemporary consumer in a sustainable manner.

By prioritizing this CBD approach over the efficiency and accuracy experienced with automation and digital methods that are the hallmark of the industrial and digital age, it is possible to gain greater focus and consequently manage the complexity of the design activity while ensuring sustainable outcomes. "Going forward Digital processes can support the design of construction and form in parallel through the contribution of detail and accuracy", (Pinsk, Kane, Evans 2018) provide global connectivity, and as tools and methods for presentation.

## 1.1 Defining Sustainability and Sustainable Development

**Sustainability** can be defined as the goal of living within our natural, social and economic means, and sustainable development is how we get there. The 1987 Brundtland Commission Report describes **Sustainable Development** as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". While the term 'sustainability' generally relates to a long-term goal, 'sustainable development' refers to the route and behaviours required to achieve that goal. The three interlinked pillars of sustainable development are: people, planet, and prosperity. In 2015, all the countries in the United Nations

adopted the 2030 Agenda for Sustainable Development. It sets out 17 **Sustainable Development Goals (SDGs)**, which include 169 targets. These wide-ranging and ambitious Goals interconnect. For example, Goal 12 is to ensure sustainable consumption and production patterns. But it is also cross-cutting, so that progress in its implementation contributes to progress towards other Goals, and action on other Goals in turn contributes to attaining Goal 12. Most of the Goals also have some direct health targets. All of them have indicators by which progress can be measured. [ WHO]. Sustainable development is key to ensuring we safeguard not only natural resources and biodiversity, but also thriving communities.

## 1.2 Design for Sustainability

**Design for Sustainability** takes into consideration the goals set by the UN and encourages designers work in tandem with other stakeholders like, common people, governments, manufacturers and organizations to achieve the goals. Designers in the Fashion and Textile realm are strategic agents for change, able to directly generate imaginative solutions for policy makers, consumers, media and business leaders. When sustainability is considered, designers, collaborating in cross-discipline teams, add value to form and function. In so doing they can instigate opportunities for commercial fashion companies to transform rhetoric into action, by embedding sustainable processes and products into the fashion system. There is a business case for sustainability: organizations can financially benefit from integrating sustainable development principles into operational strategies. Designers will have to transcend an industrial and top-down approach to one that reflects the values of ecological systems, emergence, complexity and uncertainty.

## 2. The Characteristics of CBD

### 2.1 Innovation and Creativity

“Innovation drives the world forward. It is what heals illnesses, protects individuals from danger, and makes life easier, more efficient, and more enjoyable. However, innovation does not just happen. It takes a catalyst, and one of the most robust catalysts for innovation is design. It moves an idea smoothly along its journey from a simple insight to a tangible, marketable product or service. Design provides the focus and structure that innovation so badly needs.” (Phil McKinney, 2017)

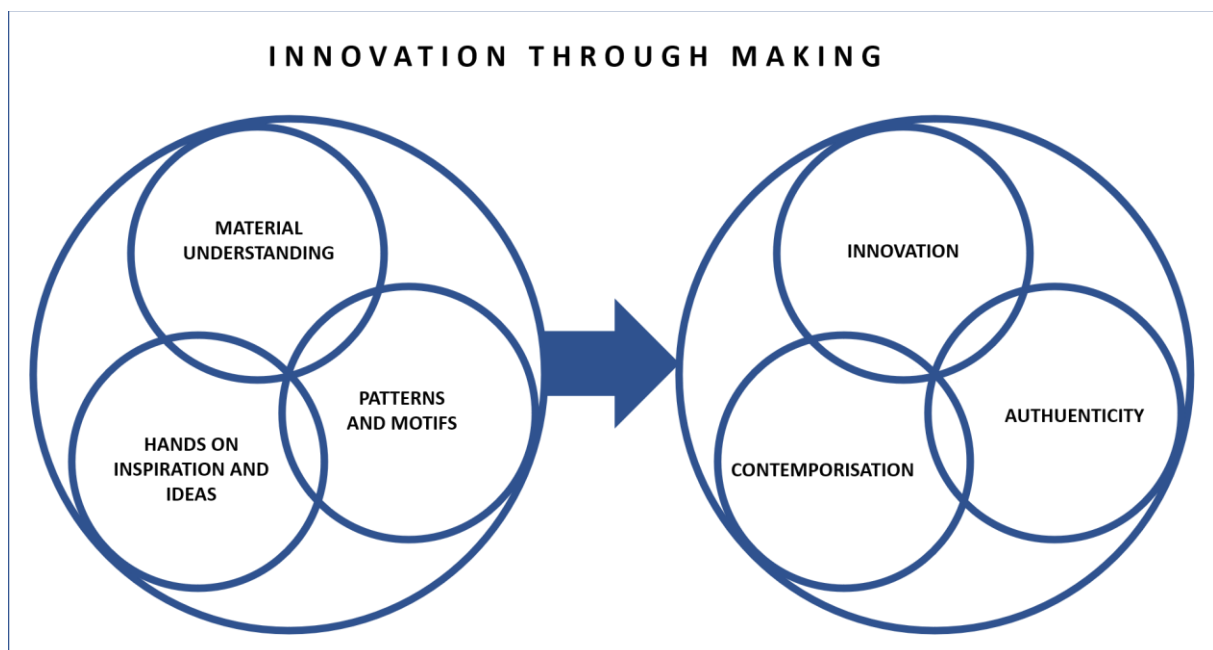


Figure 2. Innovation through making. Credit: John Varghese

Where CBD is involved, in addition to refining existing design ideas, engagement in hands-on making enabled further idea generation. For examples in a textile embroidery project possibilities were discovered whilst embroidering and ideas were generated through reflective craft-based practice. References to idea generation were prominent when refining design ideas through making. In one of the interactions a team of designers were working with crafts men. Using the “Sozni” technique of Kashmir the artisans were embroidering intricate paisleys that adorned the famous shawls of Kashmir, and they encouraged the young designers to feel the luxurious cashmere fabric and the gorgeous silk floss that was being used to embroider the motifs. They also let the designers try a few stitches on by themselves. The pattern was transferred to the fabric by means of a tracing and the artisans explained the motifs and their significance to the designers. This set off a creative process where the designer noted, ‘seeing the physical sample in front of you and handling the materials can help to spark ideas. It was identified that hands-on making can inform creative thought and this was the case during the design project. This interaction explained the passion that the craftsperson’s had for their craft and this was ‘disseminated to the designers. Passion based creation imagines a future that does not exist now.

Another facet of innovation through CBD is the process of ‘Participatory design’. This approach puts the stakeholders like craftsmen and designers at the centre and front of the design process. By including the designers to the artisans and the culture of their creativity, the project demonstrated that Participatory design otherwise called collaborative design or co-design is a typical approach to collecting indigenous wisdom and creating design solutions with social empathy and inclusion that can help us navigate the unseen future. This presents itself as a new attitude towards people and the belief that everybody—be it a designer, and expert, or not—can contribute to design ideation when provided with the right tools to express their ideas; it is inclusive in the ways in which methodology allows community engagement on the design process.

CBD also takes models from Nature & History. How can the practices of the past and models from the natural world inform textile design and production of the future? It seeks design inspiration, information and solutions from studying the textiles, habits and societies of the past and from nature including bio-mimicry. In the Kashmiri embroidery project, the designers learnt first-hand about the evolution of the materials and the motifs. Many of the motifs were inspired by Nature and had evolved over many centuries. By studying the evolution of the motifs, the designers were encouraged to create new motifs that could be used in a contemporary setting.

## 2.2 Stewardship

“Stewardship is the responsible use (including conservation) of natural resources in a way that takes full and balanced account of the interests of society, future generations, and other species, as well as of private needs, and accepts significant answerability to society.”(Richard Worrell and Michael, C Appleby ,2000)

This provides a sustainable alternative to the current growth dynamic of take, produce, use, and throw away. In a CBD approach, the natural resources and their usage is very important. The stakeholders in the community and beyond use land and other natural resources with a great deal of care and share the resources wherever possible. In Kantha quilt craft tradition, quilts are created by layering many sarees which is a popular wrap around Indian garment that are no longer in a good state for wearing in a manner for which they were originally intended. Women bring together the sarees the sharing of the materials and then use a repertoire of running stitch embroidery to piece together the fabrics and create quilts out of them. The experienced quilters share their knowledge with the novices. The common central place where they meet becomes a shared resource along with the material and skills. The patterns of the embroidery reflect the themes relating to religion, nature and observances of daily life individual the family and community. Most often food is prepared in the community kitchen or in one common place. This sharing of resources leads to optimal utilisation of the materials, space, and competencies.

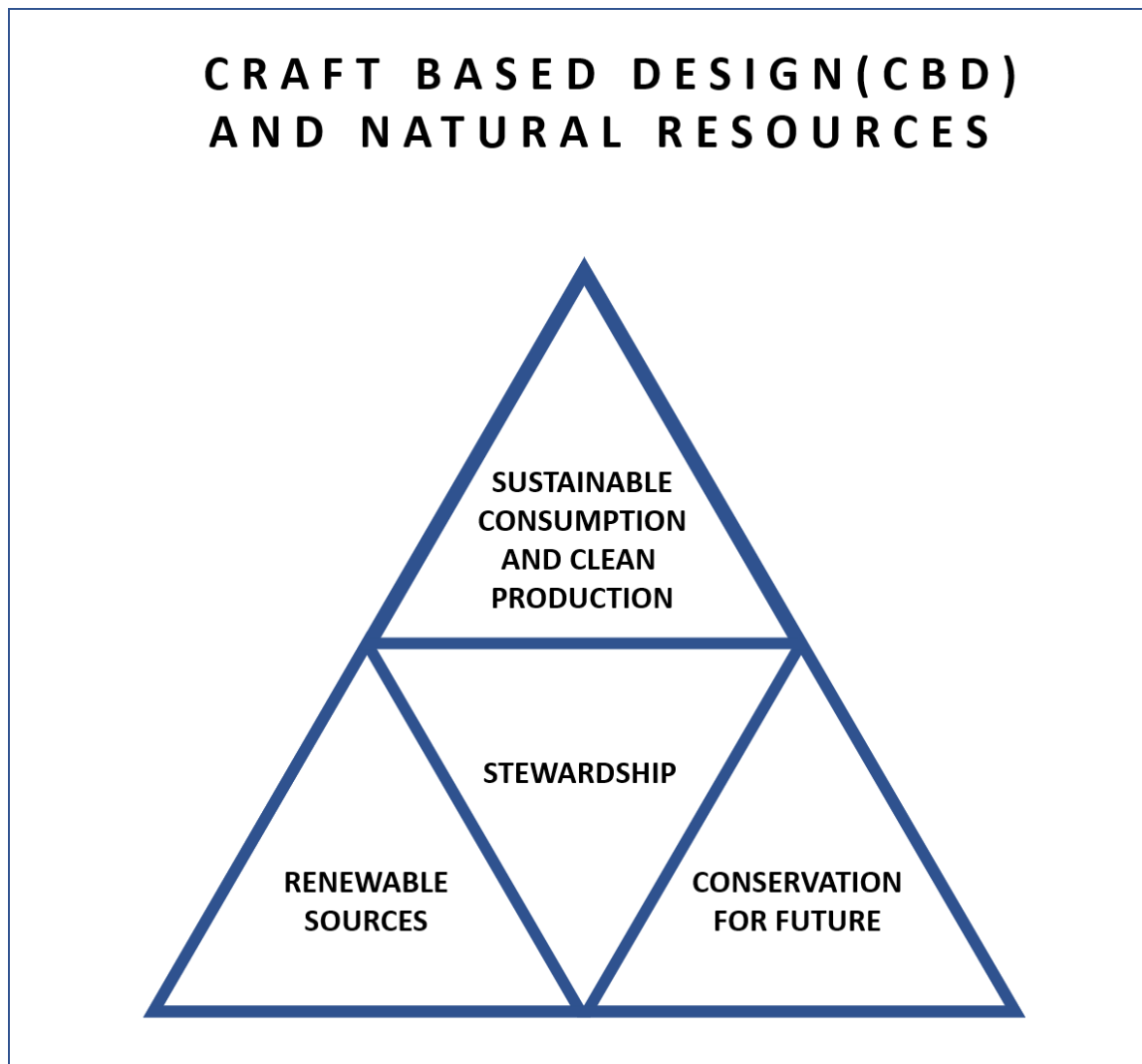


Figure3. Stewardship of Natural Resources. Credit: John Varghese

Textile recycling is a way to ensure the sustainability of textiles. Disposal of textile materials takes several years and, throughout this period, it supplies our environment around the globe with contaminated gases. Also, the production of textiles drains the planet through water usage during cultivation and processing and finishing, poisoning the environment through chemical use in the value chain. This is why people need to recycle textiles and clothes. There are several ways to use recyclable clothing. Nevertheless, the resources used to manufacture the items also point to the five various ways to recover the product – by repairing, reusing, refurbishing, remanufacturing and recycling. Adaptive reuse has a long tradition in arts and crafts, especially in India where upcycling and recycling and re purposing textiles is common.

In a project for Punja dhurries, which are floor coverings extensively made in the Indian states of Haryana and Uttar Pradesh designers experienced the textile (or textile product) construction process first-hand on the machines which leads to an awareness and intimate understanding of the product through physical engagement. Panja Dhurries are made with strips of fabric which are sourced from unused fabrics of the household or the community. This first-hand knowledge prompts designers to consider the wider context and implications of products. Assess the potential forward impact of design choices and decisions, on production, use and eventual disposal of textile products.

## 2.3 Engagement and partnerships

Partnerships with the Brands, Networking with the Governmental and Non-Governmental agencies, and For Profit and Non-profit agencies are the key in leveraging the potential of crafts for a sustainable and economically viable future.

Synergies between artisans and designers is key to sustainability and notably the paybacks are economic in nature but this requires a framework based on equity, dignity and mutual respect. International Brands have been using Indian embroideries for decades. In one interaction, the designers of Ralph Lauren could meet and see how the skilled Zardozi (metallic stitched) embroiderers work. This brings about a tectonic shift in the relationships between fashion brands and artisans. No longer are artisans looked upon as skilled labour but craftsmanship is valued as art. Many European Design houses like Dior have worked with Indian Craftsmen even from before Independence, but this time the narrative is a de-colonising one. Now they are seen as collaborators. Networks are set up between the stakeholders and the craftsmen and community stands to gain.

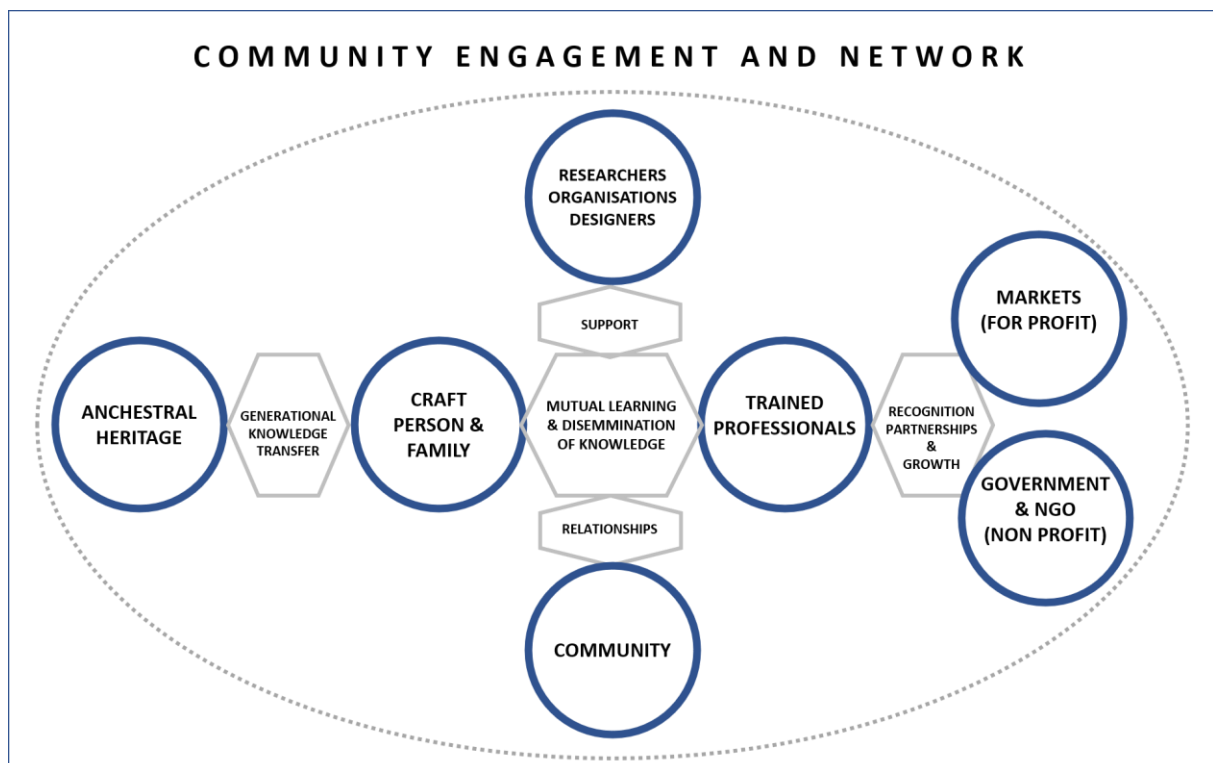


Figure 4. Community Engagement and Network in Crafts Based Societies. Credit: John Varghese

Many textile and craft traditions are community based in which the entire community stands to benefit like the Phulkari craft of Punjab. This is termed as Relational Capital. Sadly, however this community-based crafts are on the wane due to the rapid commercialization and urbanisation of the craft, but some areas of the craft still hold promise as a model that can be replicated.

To the tune of old folk songs, a gathering of women in rural Punjab, India creatively used to embroider shawls, everyday clothes and gifts, sewing brightly coloured silk thread on to khaddar, a handloomed cotton-based fabric in the earthy tones of the Punjabi countryside. Young girls keenly copy their mothers' motifs; older women embroider for future weddings. This is phulkari (phul-kari or 'flower-craft'), a traditional Punjabi folk art, dating from the 15th to the mid-20th century, when increasing commercialisation led to its decline within rural communities, implicitly ending a practice of female bonding. However, in some pockets this tradition is still kept alive. A young bride's maternal grandmother would gift a chope (a phulkari identically embroidered on both sides of the cloth), which she had begun upon the child's birth. Similarly, a boy's grandmother would create a vari

da bagh (bagh means 'garden', in reference to the dominant floral motifs) to present his future bride. Traditional baghs retained as family heirlooms are still presented as part of a trousseau, continuing the practice of phulkari as a symbol of happiness and prosperity for a married woman and her community. In 2011, a Geographical Indication patent was awarded for Phulkari, helping to preserve the heritage of this uniquely Punjabi folk art. This hopes to prevent the duplication of the technique and motifs, to make it unique and add economic value. More communities' groups would take advantage of this new found accreditation and take up the craft. Here there is case to encourage more community-based interactions so that the crafts persons and their community is lifted up.

## 2.4 Competencies and Growth

CBD contributes to the development of skills and talent. These competencies are transferred within the family, community, and beyond to the trained professionals assistants, apprentices who may be involved in the craft, the design schools and trainees who engage with the crafts. Ancestral Heritage "Crafts and crafts knowledge are living links to the past and a means of preserving cultural meaning into the future" – (Liebl and Roy 2000). Indian handicraft talent and wisdom are passed down a long line of inheritance through the transfer of tacit knowledge as part of ancestral heritage. Artisans are exposed to the craft and craft knowledge since childhood. They 'see and learn' first, and later 'learn by making'. The craftspeople have strong and long associations with the crafts they practice, and in each case the craft has become synonymous with the community it is practiced in. But there is also an amount of heterogeneity in each, as these communities employ workers from outside who may not be of the same caste and religion; this does not affect the association between communities with the craft. The story of Ajrakh, which is a resist print and dye technique of surface ornamentation is a case to the point. Dr. Ismail Mohammad Khatri from Ajrakhpur, is a well-known craftsman and a national award winner. He also holds a doctorate degree given to him by De Montfort University in the UK, for his expertise. Ismail Khatri and his two brothers are the ninth generation of the family practising Ajrakh printing. They experimented with chemical dyes, but Ismail Khatri's father, realising the hazardous effects on both people and environment, reverted back to using natural dyes, and thus played a role in reviving the traditional process of printing. This is an instance where conscious effort is taken to avoid hazardous chemical impacts on the environment. His team consists largely of his immediate family members, but he takes on assistants from outside his family and his community thus disseminating the skills accumulated over nine generations. He also regularly conducts orientation programs and in-depth classes for design students and anyone interested in the craft. This open-minded approach has been much highlighted and he has been feted with many awards. This talent and skills creation and dissemination fosters sustainable development by educating, spreading knowledge, and ennobling the human spirit and brings awareness about the product and the culture behind it. **This is highlighted with more details in the case study on Ajrakhpur given in the following section.**

As In a few of the other cases, the craftspeople had won awards and were living examples of how recognition of the craft created awareness, making it more attractive to the outside world, and more importantly, for the younger generation of craftspeople to remain in the craft and understand that the profession is worthwhile. Recognition and appreciation build confidence, and once craftspeople have confidence in what they are doing, they will be less likely to shift to other professions resulting in the building of resource capital.



### 3.Challenges of the CBD approach

Even though compared to collaborations with other fields or industries, substantial advantages for development exist in the collaboration between the design and craft, dissimilarities exist in the behaviour, objectives, and procedures for craft and design that pose challenges for the implementation of CBD

Crafts-persons find it difficult to assimilate new skills, and there is a resistance to change. Markets may demand certain standardized formats of production whereas the craft products are customized or diversified products that bear specific cultural and emotional symbols.

The other major limiting factors can be listed as the 'gender roles' and the 'social statuses'. This distinction is linked to both societal and religious beliefs, that in some communities' women are to remain in the house while men are the bread-winners. The link of crafts to caste is seen most in the crafts communities at the lower end of the social scale and lead to economic disparities. This further acts as a de-motivator for the younger generation. (Sinha.M,2019)

### 4.The Way Forward

To cater to new markets, crafts need constant innovation to adapt traditional skills to new products for changing markets. Design interventions in terms of latest trends, technical know-how and contemporary fashion needs have, no doubt, helped the crafts and craftspeople gain a foothold in the Indian Fashion Industry. (Gupta, 2012)

Initiatives to certify the authenticity of crafts are therefore being undertaken by, for example, trademarking them. Craftmark is an initiative by the All-India Artisans and Craftworkers Welfare Association (AIACA), certifying authentic, handmade Indian products. Liebl and Roy (2007) go further, insisting on development and implementation of appropriate intellectual property legislation. Digital intervention can help the crafts communities begin interacting with each other, finding areas of mutual interest. Digital processes can sharpen the learning curve, this will strengthen the craftspeople, build their confidence This also leads to empowering the craftspeople, by providing them with basic education, resources, technical knowhow and keeping them abreast with the upcoming trends. Digital tools can aid in representation of construction and form like mock ups, in parallel through the contribution of detail and accuracy when used in conjunction with more intuitive and less precise methods such as sketching and model making and can support the presentation stage. The final design ideas, which consisted of a number of formats, are brought together into a final design proposal using digital design software.

Design Activism is another area where designers extend their effect beyond the product to work creatively with community, consumers and society at large. The textile designer becomes a 'social Innovator' using design skills to meet social needs. It includes designing events and communication strategies to increase consumer and designer knowledge about the environmental and social impacts of textile products. Through publications, blogs, open-source networks, exhibitions, conferences, festivals, social media manifestos, designers can help to integrate the current Craft communities to the world

A Crafts based Design approach is a sure and steady method to tackle the crises that the planet, people and economies are facing today. A conscious effort to elevate crafts-based design to more prominence in our economic processes and working towards eliminating the drawbacks will ensure a promising sustainable future for the planet.



## 5.Ajrakhpur – A case study in CBD

Ajrakhpur located approximately 80 kilometres from the town of Bhuj is a microcosm of Traditional craft and practices ( Ajrakh Printing specifically ) in its representation of the indigenous knowledge , synergies of CBD between the practitioners of the craft and the community and other agencies like the government bodies and NGO's , It also presents the challenges faced and seismic shifts that occur in the traditions when existential changes occur .The Author and students from World University of Design visited Ajrakhpur in January 2023 , where this artistic craft and the rich tradition of its production is currently rooted for a study.

Ajrakhpur was not the centre origin of the craft. It started in Sindh region, around 3000 BC, and slowly, divergent groups of artisans followed royal patronage to Kutch region in India and it was established in Dhamadka, Kutch, around 400 years ago. It faced challenges in the post-industrial era from cheaper manmade fibres and synthetic processes and overcame great challenges during the earthquake of 2001, epi-centred in Bhuj region of Kutch and later the production shifted to Ajrakhpur. Ajrakh is a craft that has withstood the test of time for more than 5000 years. The Motifs have been found on carvings in Mohenjodaro, dating to the Indus Valley Civilization of 3000 BC, and fragments found in Fostat, Egypt dating to 12<sup>th</sup> Century. The craft's vibrant and distinctive aesthetic value has been widely recognized, increasing its market demand, and consequently changing the dynamics of the tradition behind the art itself. The process of Ajrakh block printing constitutes 12-14 steps, including making the block, preparation of the cloth, preparation of dyes, imprinting the design, and drying. Our team employed a short ethnographic, life cycle approach supported by secondary research to carefully study each step and process of the craft's production function and the role of the community involved.



Figure 5. Printed and washed Ajrakh fabrics being dried in the open fields at Ajrakhpur. Credit: John Varghese

The Khattris are the artisan community that are involved in the Ajrakh Printing Tradition. Dr.Ismail Mohammad Khatri from Ajrakhpur, is a well-known craftsman and a national award winner. He also

holds a doctorate degree given to him by De Montfort University in the UK, for his expertise. Ismail Khatri and his two brothers are the ninth generation of the family practising Ajrakh printing. “Traditionally, older craftsmen in the Khatri community have passed down their knowledge and skill set directly to younger generations as opposed to through the channels of formalized procedure and institutions.” (Deepanshu Et AL, The Wire,2020)

While in many families the generational transfer of knowledge still occurs, a significant change happened in 2001 after the Bhuj earthquake. That was when the water in the rivers in Dhamadhka turned unsuitable for dyeing and washing of Ajrakh fabrics and they had to move to a new place and this place was Ajrakhpur where the current industry is based. Some of the family members stayed behind in Dhamadhka, and the crafts men alone moved to Ajrakhpur. This led to the inclusion of members who were outside the family and community in the process of this craft. “In the Khatri community’s role in the craft is the shift from hands-on production to knowledge dissemination. Much of the Khatri community is no longer as directly involved in the hands-on production of the crafts. A lot of the work can now be seen as part of a shared responsibility with migrant workers employed by the community from parts of Uttar Pradesh, Bihar, Chhattisgarh. Instead, the Khatri community’s role has shifted to a more entrepreneurial role engaged in the large-scale commercialization and the transfer of knowledge of the craft”. (Deepanshu Et AL, The Wire,2020)

Dr Ismail Khatri’s organization holds regular educational short-term courses for enthusiasts and students. His team consists largely of his immediate family members, but he takes on assistants from outside his family and his community thus disseminating the skills accumulated over nine generations. Partly caused by the earthquake, this transfer of knowledge and skills beyond the families, and even the community to outside migrants is one of the key factors that could be responsible for the continued success of this craft.

The role of Social Organizations cannot be stressed enough. Industrialization happened post-independence, and since 1947, cheaper Synthetic dyes and fabrics started taking away the market share of this beautiful craft and threatened to bring it to an end. The traditional crafts dwindled drastically till steps were taken to revive it in the 1960s by key figures like Kamaladevi Chattopadhyay. Nevertheless, it was not until the 1970s that the State Craft Organization emerged to save the crafts that were in jeopardy. The Gujarat State Handicraft Development Corporation and its retail wing Gurjari were established in the early 1970s. The aim was to uphold the craft and create a sustainable market. At around the same time, the National Institute of Design was established in Ahmedabad. Designers were recruited from NID to work with the Handicraft Development Corporation staff and the craftsmen from rural areas of Gujarat. Thus, the crafts slowly grew into full bloom with more and more people being aware and the markets expanded from domestic customers to overseas too. (Gaatha, 2020).

Shrujan, an NGO based in Kutch, in the aftermath of earthquake, intervened at several levels, so that the indigeneity of the craft, and the skillset as a whole would not be lost and led the initiative to restore the livelihood of the people. Living and Learning Design Centre (LLDC) based in Ajrakhpur is a centre that houses a museum of Kutch Textiles, and a Craft School where craftsmen can meet with designers and exchange of Ideas and dissemination of knowledge take place.

Thus, the interaction between domains of generational knowledge, community, professional practice and, governmental and social agencies has created an environment conducive for the craft to survive. There are challenges however like the cost of production, limitations of design options due to the techniques, market acceptance of these limitations, availability of land water and other resources like migrant labour. However, concerted efforts from all the stakeholders involved and new technologies from the digital realm, education of the buyers and can help advance this mesmerizing and unique craft form into a sustainable one for future generations.



Figure 6. Dr Ismail Khatri's training and workshop for students at Ajrakhpur. Credit: John Varghese

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- The Fashion Pact
- Wool Strategy
- European Green Deal
- EU Strategy on Sustainable Textiles
- Circular Economy action Plan
- TED Ten

### About the Authors:

**Author 1** John Varghese has experience of 25 years in the international Textile industry where he worked as a designer for sustainable products; Currently he teaches in World University of Design exploring sustainable and responsible design in Fashion and Textiles.

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